California Environmental Resources Evaluation System

CERES

- ✓ **The CERES program in the Resources Agency successfully pursued an opportunity from the USDA's National Agriculture Imagery Program (NAIP) to acquire high resolution, natural color digital aerial photography of California.**

- ✓ **We will be able to freely share the NAIP imagery as it will be in the public domain allowing unrestricted access to all stakeholders.**

- ✓ **These natural color photos will allow objects as small as 1 meter or 3 feet across to be easily seen (e.g., structures, roads, waterways and vehicles can easily be seen; individuals can not be seen).**

- ✓ **State agencies partnered to contribute $435,000 to cost share the acquisition of this imagery valued at more than $2.1 million.**

- ✓ **State agency participants included:**
  - **Caltrans**
  - **Coastal Conservancy**
  - **Department of Conservation**
  - **Department of Water Resources**
  - **California Energy Commission**
  - **And many other agencies that offered funding**

- ✓ **This validates the action item in the State's IT Strategic Plan that calls for the appointment of a Geospatial Information Officer (GIO) to coordinate the development, acquisition, licensing and sharing of geospatial data by state agencies and their partners and make this kind of coordination and cost savings standard rather than exceptional.**

- ✓ **This project increases government coordination and reduces the current duplication by separate departments and agencies independently contracting for the same types of imagery.**

- ✓ **A GIO function with secure funding could negotiate cooperative agreements with California's counties and cities, as well as with Federal agencies. Savings would be greater, data would be more accurate and the good will between state and local government would increase.**

- ✓ **This fulfills the highest priority need identified by the CA GIS Council in 2003.**

- ✓ **Participants in these kinds of common sense collaborations can save 30% to 50% of normal costs for imagery.**

- ✓ **For many rural counties with no budget for aerial photography, this provides the only current photography.**

- ✓ **California needs an ongoing imagery program to better work with the USGS to help leverage the considerable investment local agencies are making in very high resolution imagery (e.g., 6-inch).**

- ✓ **These digital photos will be processed and enhanced for use in geographic information systems (GIS).**

- ✓ **The Department of Water Resources provided valuable services as fiscal agent.**

- ✓ **The Department of General Services was very responsive in helping put an Interagency Agreement in place between DWR and the USDA.**

- ✓ **Executive sponsorship from Clark Kelso, the State CIO was critical to the success of this project.**

- ✓ **Governor's leadership and support is needed to launch this effort and truly capitalize and sustain this initiative.**

- ✓ **Digital photos or imagery of the earth's surface taken from aircraft or satellites are in great demand by government agencies.**

- ✓ **Imagery provides the "raw materials" for mapping and GIS analysis used by many organizations.**

- ✓ **Uses include:**
  - **Assess the affects of global warming from large scale changes in vegetation**
  - **Assess building roof surfaces for solar power generation retrofit**
  - **Help to model statewide building energy use savings and greenhouse gas emission off-set due to urban tree shade and microclimate effects**
  - **Assess heat island affects on local climate and air quality**
  - **Can be used by Water Boards to support Administration's "Year of Enforcement" initiative by revealing unauthorized water diversions**
  - **Assess water budget for irrigated lands**
  - **Conduct rapid reconnaissance of areas of interest regardless of remoteness, terrain and accessibility**
  - **Provides a snapshot of the State for historical studies and change detection**

- **Cost effective update of maps**
  - **Presence/absence of structures (new development)**
  - **Roads and trails**
  - **Waterways, lakes and ponds**
  - **Critical and/or vulnerable infrastructure**
  - **Forests and other vegetation**
  - **Agricultural lands**
  - **Industry**
  - **Harbors and ports**
- **Objective view of land use and land cover**
- **When combined with other information like land ownership, can be used to enable informed land use planning**
- **Common frame of (spatial) reference (all agencies working off the same map)**
- **Promotes public safety and a sound economy by showing where and where not to build to avoid or mitigate risks from land slides, floods, fire and earthquakes**
- **Facilitates emergency dispatch of personnel and equipment, especially to remote areas where access is restricted and detailed knowledge of roads and trails is essential**
- **Enable a more holistic approach to watershed management as land cover and use can be better identified and quantified**
- **Monitor changes in or loss of agricultural lands**
- **Provide a backdrop against which agency specific geospatial data can be viewed and understood**
- **Assess pollution and flooding potential caused by runoff from impervious surfaces**
- **Improved border security**
- **Better, more complete information at a lower cost for each participant**
- **Resulting consistency of information and broad access contributes to better operational and planning coordination across all levels of government**
- **Enables improved efficiency and effectiveness of government for individual operational units as well as interagency activities**